



PATENT ABSTRACTS OF JAPAN

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KIYONO MINORU****(54) OPTICAL MODULATOR****(57) Abstract:**

PURPOSE: To prevent shortening of a transmission distance of an optical fiber from being caused by fetching a radiation light radiated from an optical multiplexing point of a branch optical waveguide as a monitor light, detecting a shift of an operating point by a photodetector and a signal processing control circuit and bringing it to feedback to an input signal power source.

CONSTITUTION: A radiation light radiated from an optical multiplexing point 43 of a branch optical waveguide 4a and 4b in the case an operating point is shifted is fetched as a monitor light, the shift of the operating point is detected by a photodetector 12 and a signal processing control circuit part 8 and it is brought to feedback to an input signal power source 13, adjustment of a DC bias is executed, and it is always held in a correct operating point. For instance, a signal light emitted from an optical fiber 4 is led into a signal light optical fiber 5, and a radiation light radiated from the optical multiplexing point 43 of the branch optical waveguide 4a and 4b is led into a monitor light optical fiber 6 and converted to an electric signal, and brought to feedback so as to stabilize the operating point by adjusting the DC bias of the input signal power

source. By this method, such a problem as causes shortening of a transmission distance of the optical fiber is not generated without exerting any influence on optical power of the signal light.

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